

THE INVASION OF AMERICA---BOSTON IS SURRENDERED



Undeterred, the boat parties tried to run the surf and rush the defenders.

Photo—Brown Bros.

While Coast Defences Bravely Hold Off Ships Heavy Artillery From Rear Destroys Garrisons

Part Seven of the startling narrative fact story, based on the inexorable mathematics of war. What would happen if America were invaded as was Belgium.

BOSTON harbor should have been impregnable to attack from the sea. Had Nature been a modern army engineer she could not have constructed an oceanic gate more perfectly designed for modern defence against modern ships. One might picture Boston as being protected by two great claws that curve seaward and wait there on guard, pointing toward each other. The northern claw would be Winthrop peninsula, with its beach and summer cottages. The southern one would be the long, narrow arm of land that has famous Nantasket Beach on it and ends northward at Point Allerton.

Between these two claws a prodigious hand has scattered islands. From Deer Island, lying in the north close under Winthrop, to George's Island in the south, they form a stone wall with gaps that are the channels. Far out, grouped around the portal, the sea is sown with ledges and rocks whose keep beards stream in an ever-heaving sea. Here are the Brewsters, the Devil's Back, the Graves, the Roaring Buoy.

Within there is a glorious harbor great enough for a world's armada. But the entrance is a Pass of Thermopylae.

Commanding that pass and all approaches far out to sea with zones of fire whose intersecting circles marked rings of sure destruction were defenses honestly built. They were ready to receive and withstand that climax of destructiveness which man's science has embodied in the conical steel projectile fired from the rifled gun.

The navy that invested the harbor entertained no illusions on that score. It had not dared the attempt to force the passages of Narragansett. It would not dare to force the passages of Boston. As at Narragansett, its business was to occupy the defenders and wear them out, while the army fell on them and on Boston from the land.

The ships entered a shrouded, black sea, where there was not a light to warn of reef or shoal. Lightless themselves, they groped with deep sea leads and sounding machines till they assured themselves of safe positions where they might have sea room to swing around in great closed circles at high speed.

These circles would cut deeply into the circles of the fire zones of the defenses. At close range the vessels, invisible to the forts, could send a furious volley into them and rush past before the guns could find them, to return on their circle and fire from another point. It was the penalty that darkness lays on land defenses. But it penalized the ships also.

They would have to fire without sight of their mark. They dared not betray themselves to the waiting guns on land by their searchlights.

If the searchlights were effective, the ships should have to flee to the furthest limit of the coast guns' range. At that distance they, in turn, could not deliver an effective bombardment of the land so long as it was dark. So, then, all the ferocious game of war centered for the time on the searchlights. The death laden ships, the death laden guns on land, had to wait till it was learned what the lights would do.

The enemy knew that the American defenses had only about one-half the searchlight installation that was needed. The hostile sailors had not been forced to depend on spies for this information. It was in American reports that had been made to Congress session after session.

4. The searchlight system, recognized as a vital part of harbor defence by the Endicott board on harbor defence (appointed in 1885) has grown steadily in importance with the steady increase in ship armament and ship speed.

5. The inadequacy of the installation has been made the subject of continuous reports. It is a fact that a few years ago, when a mock attack on one of the most important Atlantic defenses was ordered by the War Department, the commander had to requisition the searchlights from other coast defenses and that during the maneuvers the searchlight defence because of its inadequacy and temporary character, failed at several critical points, permitting attacking ships to come within less than 4,000 yards of one important battery.

They had prepared for their game of blind man's buff by long consultations over charts. Every ship's officer was provided with minute instructions for every contingency that human wit could forecast in the headlong game of chess that is played with cannon.

The defenders were ready, too. In the human chain that begins with the battle commander and reached from him through links of district commanders to fire commanders and battery commanders, each man had his orders for any one of a hundred things that might occur, however quickly it might come.

They knew what batteries to fire and when, at the extreme fire zone, at the intermediate zone, and at the third fire zone, which commanded the mine fields. They had before them, worked out to the ultimate detail, the order of fire if the enemy ships should come in column, in double column, or in scattered formation. Far down the beaches, north and south, they had every range plotted, that the great guns might be turned on landing parties if the secondary shore defenses should fail to hold them.

The ships struck simultaneously all along the line of defenses. They fired close in north and south, and from battleships out at sea. A plunging fire went over Nahant and across into Winthrop. The speeding ships missed the defenses and their hurtling shells wrecked the town instead. As its flames reddened the sky, the flames of Hull, at Point Allerton on the end of the southern peninsula, made a red reply.

The quick searchlights caught the ships. Again and again the white beams.

6. Usually the firing zones are: First, 6,000 yards to the extreme range of biggest guns; second or intermediate, 3,000 yards to 6,000 yards; third, (mine field zone), 3,000 yards.

light shafts fell on veering, speeding vessels and made them hurry to get away before the fire control of the defenses could cover them.

Still they returned. Each time they approached at a new point in the hope of developing a defect in the light system. Each time they fired all the metal that they could throw in the one instant before the beams fell on them.

There were few hits made by these running ships, but they could afford to waste ammunition, since their continual attack forced the defenders to use their own insufficient supply.

While half naked men in ships' turban and half naked men at coast guns and in mortar pits were toiling to break brute destruction a game of wit was being played just as busily. This game was played not on the huge armored ships, not in the formidable engine batteries of the forts, but at places miles away from either.

They were insignificant little places from the point of view of war—summer settlements on friendly beaches, harmless little coves, pleasant shores beset with the fantastic hotels and fantastic towers of American pleasure places. In the summer days of peace probably not one in any thousand of the happy crowds that played and laughed there ever imagined that these serene, careless places could have any importance some day in battle.

That night they were playing a part that was full of danger to the venturesome ships. The American engineers had established portable searchlights there and made base stations and range finding points of them. Every one of these insignificant outlying points was endowing the guns in the distant defenses with an added deadliness of accuracy.

The modern rifled gun is fired not by sight but by mathematics. The

position of its target is found not by guess but by triangulation. Far away on either side of land batteries are observers. The straight line from one to the other is the base line. As soon as they sight a ship each turns his instruments on it and gets the angle from his end of the base line. The ship to be fired at is at the apex of the triangle thus obtained.

The men at the guns get this position by telephone instantly. They know to a foot what their weapons' elevation must be with a given charge of powder and a given weight of projectile to reach that distant spot. They set their mammoth piece, elevate it above the parapet on its lift, fire it and bring it back into concealment again.

To bombard these base stations from the sea was nearly futile. The shells that could sweep a fire shore and make it untenable for an army might never find these few scattered, concealed men or these scattered, hidden, tiny stations. A whole fleet might rave at them for hours and in vain. There was only one sure, quick way to cripple them.

Far northward, miles outside of Boston harbor, beyond the system of the harbor defenses, two ships stood in Nahant Bay until they were within a line drawn from Fishing Point, south of Swampscott, to Spouting Horn, on Nahant. Here in seven fathoms of

7. Estimated number of shots required at night from ships afloat at 6,000 yards: To destroy position finding tower which is visible, 22 12 inch shells; 250 4 inch shells or 2,500 3 inch shells; to destroy invisible station without tower, 400 12 inch shells, 5,000 4 inch shells; to destroy searchlight, 24 12 inch shells, 200 4 inch shells or 3,000 3 inch shells. This fact makes it feasible to protect outlying and secondary range stations perfectly if sufficient troops can guard each station to fight off landing parties.

With City at Enemy's Mercy and Bombardment Imminent Stars and Stripes Are Hauled Down

water they stopped and lowered their boats.

Manned by crack bluejackets whose oars were wrapped with cloth that they should not make a sound in the rowlocks, the cutters moved toward the beach at Little Nahant.

Far away the harbor searchlights played like summer lightning. The sailors moved on in utter darkness, toward the invisible beach. They rowed in, in irregular formation, till they could hear the surf. Then the foremost boats lay still, tossing on the swell, waiting for the others to draw abreast. Formless, vaguely gray in the night, the line made a dash.

They were on the first lifting swell of the long waves that tumble toward the land when a fierce white light tore terribly through the night, and blazed on them, and around them. It held them, intangibly, tightly, like the hand of a ghost.

Orange flashes ripped through it. Little Nahant beach quaked with explosion. In the white light, as if the tossing boats were spectral pictures in a dissolving view, they melted amid the roar of the shore guns. Black fragments whirled through the steady glare, and shells chopped the sea where there were bobbing heads and clutching hands.

The light stabbed the night, in and out. It veered to sea with enormous speed. A long, black silhouette with three funnels appeared full in the circle of its artificial day. A funnel vanished, and another. A spout of water lifted alongside, from a shell that had fallen short. Another, the

next instant, smashed into its side and made it reel.

The destroyer turned suddenly and rushed at the land. Its steering gear had been shot away. Almost instantly it straightened out again but Little Nahant was raving. Little Nahant was flaming without pause. The searchlight held the ship. It staggered like a stumbling animal, pitched twice, each time a little more wildly, and went down bow first.

"Have repulsed attack on searchlight station and observers at this point," went the word from Bailey's Hill on Nahant to the battle commander in Fort Warren. No losses. Destroyer and five ships' boats with crews completely eliminated.

They did not have time to cheer at Fort Warren. From Nantasket Beach, as far south as Nahant was north, a landing was being attempted in greater force and with the determined assistance of a destroyer division that was lying close to the beach.

Here there were three hundred men of Massachusetts Naval Militia behind barb wire and sand bag defenses with two pieces of field artillery and three machine guns. They were being swept by savage fire from the destroyers.

"We can hold the ships' boats off, surf high and landing will be slow," they reported to the battle commander by field telegraph. "But we must have relief from naval fire or cannot concentrate efforts on landing parties."

Their officers sent the exact distance of the destroyers from the beach. In the forts the fire commanders studied their charts, plotted with diagrams of the shore in sections. They calculated the range. A dropping shot from a 6 inch gun fell among the enemy vessels one minute later. The next went over. The third struck a destroyer. Before it disappeared shells were falling among the division too fast to count. Three guns were firing. They were throwing twelve shells in one minute.

Two destroyers were towed away crippled. Another escaped from the fire zone but sank at sea.

Undeterred, the boat parties tried to run the surf and rush the defenders. But the sea was heavy, breaking with a sharp overfall. Unprotected by fire from the sea, unable to work their own machine guns in the rough water, the sailors were pounded in the breakers. The field artillery blew their boats apart. The machine guns slashed them. Rifle fire hammered them.

"Attack beaten off," reported the militiamen. In the surf there were a few drifting pieces of wood, tossing oars and bodies pitching to and fro as the undertow played with them. "Destroyer division off this point." It was a report from Strawberry Hill, south from Fort Revere.

Point Allerton's searchlight swung down the beach, the searchlight from Strawberry Hill centred on them. The reckless craft, the husars of the sea, dashed in to a 400 yard range, and steaming parallel with the beach at full speed sent in a heavy broadside fire from all their guns. More than three hundred shells were directed against the Strawberry Hill light in those few minutes. They swung and thode to the sea as the batteries of the fort opened on them.

8. Actual records of American harbor batteries: Three six inch guns on disappearing carriages, fifteen shots in 1 minute 27 seconds.

9. From an actual maneuver performed successfully by a destroyer division attempting to destroy a base station during a mock battle on the Atlantic coast.



Three hundred men of Massachusetts Naval Militia behind barb wire and sand bag defences.

Photo—Brown Bros.

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